MONTANA
POLICY REVIEW

Interoperability Montana from a User Perspective
Roles and Responsibilities of Users
By Jason Shrauger

The roles and responsibilities of users of the Interoperability Montana (IM) system vary based on the projected level of use at the local level. The important thing to remember about IM is that it is a "system of systems." In most areas of the state, agencies will be joining the system at different levels and at different times. Presently, there is only one county completely on the IM system, however, other areas are planning for an early 2008 cut over date.

The important thing to remember about IM is that it is a "system of systems." In most areas of the state, agencies will be joining the system at different levels and at different times.

Local agencies are looking at IM from several different perspectives. Some agencies plan to completely switch to the trunked level of the hybrid system and use it as their primary communications network, while others plan to use IM as "another tool in the communications tool box." Still other agencies are looking at the IM system as a solution to their failing infrastructure, connectivity, and coverage needs. The exact way any community chooses to interface will define the roles and responsibilities it will have. Simply stated, the system is designed to meet a variety of needs and has always been inclusive, not exclusive.

It is important to remember that Interoperability Montana is a system designed by the users for the users, based on user defined needs. Agencies in the eight communications consortia and the Mobile Data project (MDT) participated in individual communications studies to benchmark existing communications systems which ultimately identified options to the shortfalls identified. These consortia plans eventually became the foundation for Interoperability Montana and are currently being used as reference points for state-wide build out of the system.

Several significant challenges have been identified as the group has contemplated build out of the IM system. One of the most significant is the differing levels of support across the state. Views and concerns vary widely from, "I will never use a system that puts the safety of my responders in the hands of a computer," to "this is the best thing to

happen to public safety communication in a long time, and I don't know how we did without it." Healthy skepticism is a good thing and we have asked people to "buy in" to an idea that has significant costs and is different from what they are doing today. It would be surprising, and even worrisome, if the majority of Montana's responders did not ask the tough questions and demand sound answers to their questions. Issues like network reliability away from the core of the system in Lewis and Clark County, trunked radio access points to control user functionality in remote locations, capacity of the system, up time versus down time, and how agencies on the IM system communicate with responders who are not on it are just a few of the issues raised. As system build out continues along the Northern Tier, South Central Montana, Central Montana and the I-15/I-90 corridor, ground truth will be established and all will be able to make informed decisions about the system and its application in their particular circumstances.

The Project Directors firmly believe that as the system is built out, trust will grow and responders and affected agencies will begin to see and hear positive things which will, in turn, result in a strong desire to take advantage of the capabilities of the system. Certainly, it is incumbent upon those currently using IM to actively support the system and help garner the positive outcomes we all seek to achieve.

Local Participation

Once a community has defined the level to which they want to use the IM locally, there are several paths they may follow. User involvement is a local decision but, as a general rule, the more one participates, the better their understanding, and ultimately, the better the outcome. The IM project includes several layers of user participation including local consortia meetings, weekly technical committee conference calls, and monthly Project Directors meetings in Helena. All are open and participation is encouraged at all levels.

Users/agencies will most likely find that the more they plan to utilize the hybrid system, the more they will want to be involved in the individual subcommittees. The IM Technical Committee is where the bulk of the design decisions are made for the system. This committee meets weekly by phone and discusses site locations, network design, encryption, and frequency issues, and incorporates them into the overall system design.

Key to the success of the IM hybrid system is the acquisition of VHF frequencies for use at each site. For this to be successful, users should plan on providing some local frequencies to be used for this purpose. The availability of frequencies varies by population, geographic area and radio use. Local frequency sharing is critical for system build out and frequency acquisition has been a significant stumbling block to system expansion.

Education and Understanding

Interoperability Montana represents a new way of thinking about voice and data communication. As such, education is key to realistic expectations and sound implementation strategies. Communities that fully embrace and want to implement the trunked level of the IM system should strongly consider having an individual dedicated to the project. Local needs advocacy is critical and is usually best served through the continuity and understanding of a "dedicated" local communication manager. Duties of a local manager include, but are not limited to, local frequency allocation, partnership building with nontraditional users, and focusing on the intricacies of a new technology. Additionally, the positive and negative impacts of the decisions made at the technical level and those of a political nature both require local input to ensure decisions meet local needs.

Once the system backbone is in place, local users will go through a communication

planning process commonly referred to as business practices and fleet mapping. Trunking is different than conventional radio, and proper utilization requires good planning. Fleet mapping determines and defines talk groups and how they integrate with each other and legacy communications systems as well as how users will employ encryption and wide-area coverage.

System Enhancements

The IM system has several important features not commonly seen in traditional conventional voice systems. Many of these features will enhance operability, some are optional, but all require planning to be used most efficiently and effectively. The Public Safety Services Office can provide important help as you think about your communications future. Historically, Montana public safety agencies have not had access to functionality like channel encryption, unlimited talk groups, emergency "man down buttons" or the ability to shut a radio off if lost or stolen. Additionally, operational issues such as simultaneous transmitting (cancelling each other out), or radios keyed open blocking any other users from using the system will become a thing of the past.

An important enhancement of the new system is the additional coverage it can bring to a local community. Agencies that traditionally communicate on one repeater (typically located on the highest mountain) can now have the ability to access several sites giving them coverage in areas they may not have had in the past. Increasing the density of transmitter sites will allow urban areas to have communications inside structures they may not have had in the past.

Gallatin County is looking forward to testing the system in a setting where some agencies are planning on joining immediately and others are not. This type of emergency response environment will clearly show how users utilizing different communications systems can work together under the Interoperability Montana model. We are looking forward to participating in this real life demonstration showing how phasing in different disciplines and agencies at different times will work in a real environment without losing any of the interoperability we all enjoy today.

In a perfect world, Interoperability Montana would be able to implement the hybrid system in much the same way Lewis and Clark County did. Unfortunately, no one showed up with a big blank check, and we will have to build the system out in phases. Certainly this brings new challenges, but it can (and is) being done. As in most things, it will require teamwork, compromise and a willingness to step up and work hard. The areas that want it the most are usually the best candidates for build out. No one wants to force this upon anyone who doesn't have a real interest in participating.

The layered radio network envisioned in Interoperability Montana may not be a one-size-fits-all solution to all of Montana's varied radio and data communication challenges. It is however, at least in our estimation, a giant leap in the right direction and can provide important communication tools that will help strengthen an already strong operational relationship between Montana's emergency responders.

Jason Shrauger is the Gallatin County Emergency Manager and Project Director of the South Central Montana Interoperability Consortium.